

1.00	1.00	CNV-SIL	Very Channery & Silty Loam
1.00	1.00	CNV-SL	Very Channery & Sandy Loam
1.00	1.00	CNX	Extremely Channery
1.00	1.00	CNX-SL	Extremely Channery & Sandy Loam
1.00	1.00	COS	Coarse Sand
1.00	1.00	COSL	Coarse Sandy Loam
1.00	1.20	CR	Cherty
1.00	1.20	CR-L	Cherty & Loam
1.00	1.20	CR-SICL	Cherty & Silty Clay Loam
1.00	1.20	CR-SIL	Cherty & Silty Loam
1.00	1.20	CR-SL	Cherty & Sandy Loam
1.00	1.20	CRC	Coarse Cherty
1.00	1.20	CRV	Very Cherty
1.00	1.20	CRV-L	Very Cherty & Loam
1.00	1.20	CRV-SIL	Very Cherty & Silty Loam
1.00	1.30	CRX	Extremely Cherty
1.00	1.30	CRX-SIL	Extremely Cherty & Silty Loam
1.00	1.00	DE	Diatomaceous Earth
1.00	1.00	FB	Fibric Material
1.00	1.00	FINE	Fine
1.00	1.00	FL	Flaggy
1.00	1.10	FL-FSL	Flaggy & Fine Sandy Loam
1.00	1.00	FL-L	Flaggy & Loam
1.00	1.00	FL-SIC	Flaggy & Silty Clay
1.00	1.00	FL-SICL	Flaggy & Silty Clay Loam
1.00	1.00	FL-SIL	Flaggy & Silty Loam
1.00	1.00	FL-SL	Flaggy & Sandy Loam
1.00	1.10	FLV	Very Flaggy
1.00	1.10	FLV-COSL	Very Flaggy & Coarse Sandy Loam
1.00	1.10	FLV-L	Very Flaggy & Loam
1.00	1.10	FLV-SICL	Very Flaggy & Silty Clay Loam
1.00	1.10	FLV-SL	Very Flaggy & Sandy Loam
1.00	1.10	FLX	Extremely Flaggy
1.00	1.10	FLX-L	Extremely Flaggy & Loamy
1.00	1.00	FRAG	Fragmental Material
1.00	1.10	FS	Fine Sand
1.00	1.10	FSL	Fine Sandy Loam
1.00	1.00	G	Gravel
1.00	1.00	GR	Gravelly
1.00	1.00	GR-C	Gravel & Clay
1.00	1.00	GR-CL	Gravel & Clay Loam
1.00	1.00	GR-COS	Gravel & Coarse Sand
1.00	1.00	GR-COSL	Gravel & Coarse Sandy Loam
1.00	1.00	GR-FS	Gravel & Fine Sand
1.00	1.00	GR-FSL	Gravel & Fine Sandy Loam
1.00	1.00	GR-L	Gravel & Loam
1.00	1.00	GR-LCOS	Gravel & Loamy Coarse Sand
1.00	1.10	GR-LFS	Gravel & Loamy Fine Sand
1.00	1.00	GR-LS	Gravel & Loamy Sand

1.00	1.00	GR-MUCK	Gravel & Muck
1.00	1.00	GR-S	Gravel & Sand
1.00	1.00	GR-SCL	Gravel & Sandy Clay Loam
1.00	1.00	GR-SIC	Gravel & Silty Clay
1.00	1.00	GR-SICL	Gravel & Silty Clay Loam
1.00	1.00	GR-SIL	Gravel & Silty Loam
1.00	1.00	GR-SL	Gravel & Sandy Loam
1.00	1.10	GR-VFSL	Gravel & Very Fine Sandy Loam
1.00	1.00	GRC	Coarse Gravelly
1.00	1.00	GRF	Fine Gravel
1.00	1.00	GRF-SIL	Fine Gravel Silty Loam
1.00	1.00	GRV	Very Gravelly
1.00	1.00	GRV-CL	Very gravelly & Clay Loam
1.00	1.00	GRV-COS	Very Gravelly & coarse Sand
1.00	1.00	GRV-COSL	Very Gravelly & coarse Sandy Loam
1.00	1.00	GRV-FSL	Very Gravelly & Fine Sandy Loam
1.00	1.00	GRV-L	Very Gravelly & Loam
1.00	1.00	GRV-LCOS	Very Gravelly & Loamy Coarse Sand
1.00	1.00	GRV-LS	Very Gravelly & Loamy Sand
1.00	1.00	GRV-S	Very Gravelly & Sand
1.00	1.00	GRV-SCL	Very Gravelly & Sandy Clay Loam
1.00	1.00	GRV-SICL	Very Gravelly & Silty Clay Loam
1.00	1.00	GRV-SIL	Very Gravelly & Silt
1.00	1.00	GRV-SL	Very Gravelly & Sandy Loam
1.00	1.00	GRV-VFS	Very Gravelly & Very Fine Sand
1.00	1.00	GRV-VFSL	Very Gravelly & Very Fine Sandy Loam
1.00	1.10	GRX	Extremely Gravelly
1.00	1.10	GRX-CL	Extremely Gravelly & Coarse Loam
1.00	1.10	GRX-COS	Extremely Gravelly & Coarse Sand
1.00	1.10	GRX-COSL	Extremely Gravelly & Coarse Sandy Loam
1.00	1.10	GRX-FSL	Extremely Gravelly & Fine Sand Loam
1.00	1.10	GRX-L	Extremely Gravelly & Loam
1.00	1.10	GRX-LCOS	Extremely Gravelly & Loamy Coarse
1.00	1.10	GRX-LS	Extremely Gravelly & Loamy Sand
1.00	1.10	GRX-S	Extremely Gravelly & Sand
1.00	1.10	GRX-SIL	Extremely Gravelly & Silty Loam
1.00	1.10	GRX-SL	Extremely Gravelly & Sandy Loam
1.00	1.20	GYP	Gypsiferous Material
1.00	1.00	HM	Hemic Material
-	1.50	ICE	Ice or Frozen Soil
1.00	1.20	IND	Indurated
1.00	1.00	L	Loam
1.00	1.00	LCOS	Loamy Coarse Sand
1.00	1.10	LFS	Loamy Fine Sand
1.00	1.00	LS	Loamy Sand
1.00	1.00	LVFS	Loamy Very Fine Sand
1.00	1.00	MARL	Marl
1.00	1.00	MEDIUM coarse	Medium Coarse
1.00	1.00	MK	Mucky

1.00	1.00	MK-C	Mucky Clay
1.00	1.00	MK-CL	Mucky Clay Loam
1.00	1.00	MK-FS	Muck & Fine Sand
1.00	1.00	MK-FSL	Muck & Fine Sandy Loam
1.00	1.00	MK-L	Mucky Loam
1.00	1.00	MK-LFS	Mucky Loamy Fine Sand
1.00	1.00	MK-LS	Mucky Loamy Sand
1.00	1.00	MK-S	Muck & Sand
1.00	1.00	MK-SI	Mucky & Silty
1.00	1.00	MK-SICL	Mucky & Silty Clay Loam
1.00	1.00	MK-SIL	Mucky Silt
1.00	1.00	MK-SL	Mucky & Sandy Loam
1.00	1.00	MK-VFSL	Mucky & Very Fine Sandy Loam
1.00	1.00	MPT	Mucky Peat
1.00	1.00	MUCK	Muck
1.00	1.00	PEAT	Peat
1.00	1.00	PT	Peaty
1.00	1.50	RB	Rubbly
1.00	1.50	RB-FSL	Rubbly Fine Sandy Loam
1.00	1.00	S	Sand
1.00	1.00	SC	Sandy Clay
1.00	1.00	SCL	Sandy Clay Loam
1.00	1.00	SG	Sand & Gravel
1.00	1.00	SH	Shaly
1.00	1.00	SH-CL	Shaly & Clay
1.00	1.00	SH-L	Shale & Loam
1.00	1.00	SH-SICL	Shaly & Silty Clay Loam
1.00	1.00	SH-SIL	Shaly & Silt Loam
1.00	1.50	SHV	Very Shaly
1.00	1.50	SHV-CL	Very Shaly & Clay Loam
1.00	.00	SHX	Extremely Shaly
1.00	1.00	SI	Silt
1.00	1.00	SIC	Silty Clay
1.00	1.00	SICL	Silty Clay Loam
1.00	1.00	SIL	Silt Loam
1.00	1.00	SL	Sandy Loam
1.00	1.00	SP	Sapric Material
1.00	1.00	SR	Stratified
1.00	1.00	ST	Stony
1.00	1.00	ST-C	Stony & Clay
1.00	1.00	ST-CL	Stony & Clay Loam
1.00	1.00	ST-COSL	Stony & Coarse Sandy Loam
1.00	1.10	ST-FSL	Stony & Fine Sandy Loam
1.00	1.00	ST-L	Stony & Loamy
1.00	1.00	ST-LCOS	Stony & Loamy Coarse Sand
1.00	1.10	ST-LFS	Stony & Loamy Fine Sand
1.00	1.00	ST-LS	Stony & Loamy Sand
1.00	1.00	ST-SIC	Stony & Silty Clay
1.00	1.00	ST-SICL	Stony & Silty Clay Loam

1.00	1.00	ST-SIL	Stony & Silt Loam
1.00	1.00	ST-SL	Stony & Sandy Loam
1.00	1.10	ST-VFSL	Stony & Sandy Very Fine Silty Loam
1.00	1.20	STV	Very Stony
1.00	1.20	STV-C	Very Stony & Clay
1.00	1.20	STV-CL	Very Stony & Clay Loam
1.00	1.20	STV-FSL	Very Stony & Fine Sandy Loam
1.00	1.20	STV-L	Very Stony & Loamy
1.00	1.20	STV-LFS	Very Stony & Loamy Fine Sand
1.00	1.20	STV-LS	Very Stony & Loamy Sand
1.00	1.20	STV-MPT	Very Stony & Mucky Peat
1.00	1.20	STV-MUCK	Very Stony & Muck
1.00	1.20	STV-SICL	Very Stony & Silty Clay Loam
1.00	1.20	STV-SIL	Very Stony & Silty Loam
1.00	1.20	STV-SL	Very Stony & Sandy Loam
1.00	1.20	STV-VFSL	Very Stony & Very Fine Sandy Loam
1.00	1.20	STV-VFSL	Very Stony & Very Fine Sandy Loam
1.00	1.30	STX	Extremely Stony
1.00	1.30	STX-C	Extremely Stony & Clay
1.00	1.30	STX-CL	Extremely Stony & Clay Loam
1.00	1.30	STX-COS	Extremely Stony & Coarse Sand
1.00	1.30	STX-COSL	Extremely Stony & Coarse Sand Loam
1.00	1.30	STX-FSL	Extremely Stony & Fine Sandy Loam
1.00	1.30	STX-L	Extremely Stony & Loamy
1.00	1.30	STX-LCOS	Extremely Stony & Loamy Coarse Sand
1.00	1.30	STX-LS	Extremely Stony & Loamy Sand
1.00	1.30	STX-MUCK	Extremely Stony & Muck
1.00	1.30	STX-SIC	Extremely Stony & Silty Clay
1.00	1.30	STX-SICL	Extremely Stony & Silty Clay Loam
1.00	1.30	STX-SIL	Extremely Stony & Silty Loam
1.00	1.30	STX-SL	Extremely Stony & Sandy Loam
1.00	1.30	STX-VFSL	Extremely Stony & Very Fine Sandy Loam
1.00	.00	SY	Slaty
1.00	.00	SY-L	Slaty & Loam
1.00	.00	SY-SIL	Slaty & Silty Loam
1.00	.50	SYV	Very Slaty
1.00	.00	SYX	Extremely Slaty
1.00	1.00	UNK	Unknown
1.00	.00	UWB	Unweathered Bedrock
1.00	1.00	VAR	Variable
1.00	1.00	VFS	Very Fine Sand
1.00	1.00	VFSL	Very Fine Sandy loam
1.00	.00	WB	Weathered Bedrock

Hatfield Model Release 4.0

Automation Description and User Guide

HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

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1. GENERAL DESCRIPTION
2. SYSTEM REQUIREMENTS
3. INSTALLATION INSTRUCTIONS
4. RUNNING THE MODEL
5. ADJUSTING USER INPUTS AND MANAGING SCENARIOS
6. ADDITIONAL FEATURES
7. TROUBLESHOOTING

HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

1. General Description

The Hatfield Model Release 4.0 calculates the cost of unbundled network elements (UNEs), universal service funding (USF) requirements, and the cost of carrier access and interconnection through the use of a highly sophisticated costing tool. The computer program chosen to support such a complicated analysis is Microsoft Excel 7.0. The model's calculations are contained in four Excel workbooks; these workbooks include the:

1. *Distribution Module*
2. *Feeder Module*
3. *Switching and Interoffice Module*
4. *Expense Module.*

The Hatfield Model's developers and sponsors believe that a model developed in a readily understandable and ubiquitous spreadsheet program will permit detailed analysis of the Hatfield Model's calculations, algorithms, and user definable inputs. Moreover, the use of Microsoft Excel's auditing tools will allow the user to determine relationships among the Model's various inputs and outputs.

While Hatfield Model Release 4.0 remains a spreadsheet-based model, it uses two Microsoft programming languages -- Visual Basic (VB) and Visual Basic for Applications (VBA) -- and a database to integrate the Hatfield Model's four calculating modules. (See Model flowchart on the following page.) The use of programming code and macros allows the model to run with only limited user intervention as the programming code copies and pastes intermediate results and data among modules. Most importantly, the Hatfield Model no longer requires a "super-PC" to operate. Although the recommended PC is a 133 to 200 MHz Pentium with 64Mb of RAM, the Hatfield Model 4.0 will operate on less capable machines as well.

Hatfield Model Release 4.0 takes advantage of Microsoft's object oriented structure to enhance the model's speed and functionality. SQL database queries have removed the need for complex and time consuming data aggregation functions within Excel, permitting the model to calculate quickly and produce results at various levels of aggregation.

Specifically, two calculations are performed within the database. First, the database aggregates investment results from the CBG level to the Wire Center and Density Zone levels. Second, the database assigns switching and interoffice investments (which are developed on a per-line basis) to each CBG. In both cases the calculations are simple arithmetic, and can be externally verified by the user. Use of the database increases the efficiency of the model, but does not compromise its auditability.

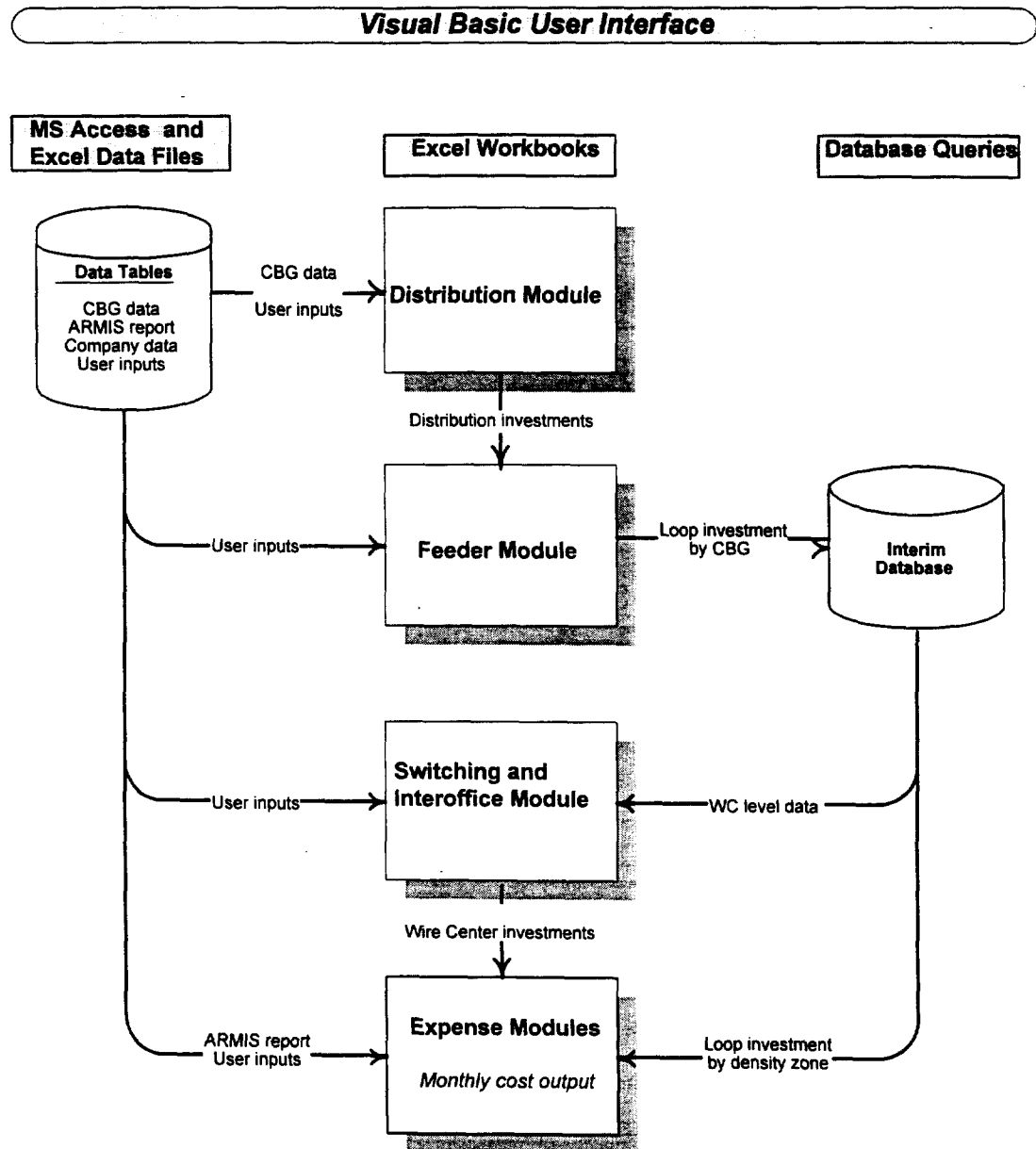
To further enhance the Model's auditability, an Excel "workfile" is generated with each run to keep track of the intermediate results of each module. Using this workfile, the user can trace the development of investment results through each of the calculating modules.

HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

HATFIELD MODEL 4.0

Module Flowchart



HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

2. System Requirements

In order to run Hatfield Model Release 4.0, your PC should meet the following requirements:

- 133 to 200 MHz Pentium processor*
- 64 megabytes of RAM*
- SVGA monitor set to 800 x 600 (or higher) display resolution
- 200 megabytes of available hard drive capacity
- Microsoft Windows NT or Windows 95 operating system
- Microsoft Office Professional 95 (preferred), or at a minimum, Microsoft Excel Version 7.0

The items marked with an asterisk (*) are recommended requirements, and should be followed if the Model is to be used for large companies in large states (i.e., California, New York, or Texas). For smaller companies, the Model will function on a smaller PC.

Please note that the preferred application software is Microsoft Office Professional for Windows 95 that incorporates Excel 7.0, Access 7.0, and Word for Windows 7.0.¹ Use of this complete suite of Microsoft products will ensure that all file libraries that are needed to run the model will be installed. In addition, Word for Windows 7.0 permits users to examine the Model's documentation in electronic form, and Access 7.0 will permit the user to examine the Model's input data more readily.

Users wishing to run the Model having only a stand-alone installation of Excel 7.0 should examine the "Readme.txt" file on the Model's home directory or Section 7 of this documentation for instructions on how to ensure that their computer's installation of supporting file libraries for Excel 7.0 is sufficient to run the model.

¹ Please note that the Hatfield Model Release 4.0 has not been developed and tested to operate under the Microsoft Office 97 suite of applications programs. Because of certain inabilities of Office 97 programs to execute code developed under Office 95, the Hatfield Model Release 4.0 does not currently run successfully in an Office 97 environment. The Hatfield Model developers have been working with Microsoft to identify the source of these incompatibilities, and hope that shortly the model will execute successfully in either the Office 95 or Office 97 environment.

HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

3. Installation Instructions

Hatfield Model Release 4.0 ships as a single self-extracting installation file. In order to install your copy of the Hatfield Model 4.0 please follow these directions.

1. Ensure that your personal computer and its software meets the system requirements described in Section 2.
2. Place the Hatfield Model 4.0 CD-ROM in your PC's CD-ROM drive.
3. Locate and double click on the *File Manager* or *Windows Explorer* icon.
4. Double click on the icon for your computer's CD-ROM drive.
5. Double click on the Hatfield Model Release 4.0 installation icon. The model will first check to see if a previous installation of Release 4.0 of the Hatfield Model exists on your computer. If a previous installation is found, you will be queried as to whether you wish this previous installation to be deleted, or the current installation process aborted. If you wish to retain your old installation of Release 4.0, you should choose to abort the installation process and use Windows File Manager or Explorer to change the name of the old installation's *HM40.exe* file to another name. You may then rerun the current installation process.²
6. The model will run a self-extraction routine that will install the Model and all of its components on your computer's internal hard drive.
7. You are now ready to run the Hatfield Model Release 4.0.

² Note that if you decide to preserve your previous installation of the Hatfield Model Release 4.0, only the most recent installation will be "active" and be executed when you click on the Model's icon or entry in the Start menu.

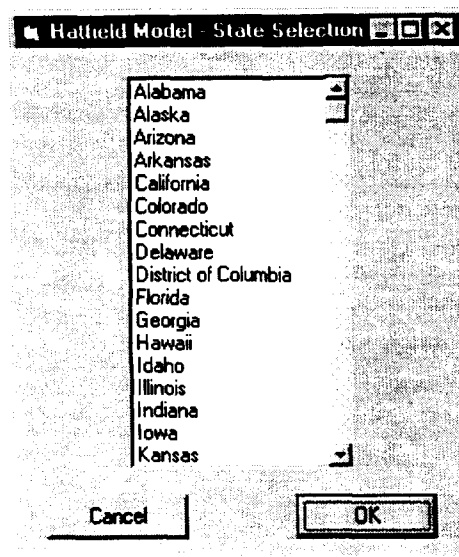
HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

4. Running the Model

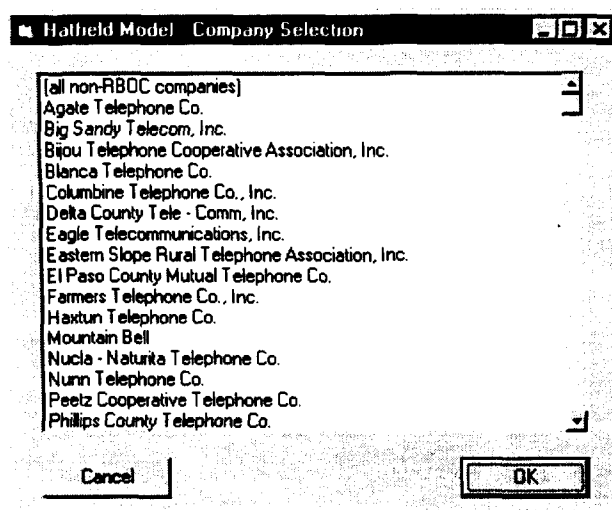
Select State

Running Hatfield Model Release 4.0 is very straightforward. To start the program, click on its icon under the *Programs* entry on the *Start* menu (in Windows 95 or Windows NT 4.0), or the Hatfield Model program group (in Windows NT 3.51). A copyright message will appear, followed by the State Selection form. From this list, select the state you desire to run:



Select Company

After the State is selected, the Company Selection window will appear. This window will contain the names of all companies in the selected state for which Hatfield Model Release 4.0 contains data. Select the appropriate company from this list.



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MODEL INTERFACE AND AUTOMATION DESCRIPTION

If you have not previously run this State/Company combination under this installation of the Hatfield Model Release 4.0, you will be queried as to whether you wish to create a default scenario. You should click on "OK."

Run the Model

After the desired state and company are selected, the main window will appear.

Module	Status	
Distribution	Complete	Reset
Feeder	Complete	Reset
Switching	Complete	Reset
Expense	Complete	Reset

Run

Summarize By

☒ Density Zone

☐ Wirecenter

☐ CBG

View Expense Results

To run the Model using default user inputs, select either ***Density Zone***, ***Wirecenter***, or ***CBG*** level outputs, by clicking on the appropriate button. Click ***Run***. The Model will automatically calculate its four modules, then output results (in the Expense Module) in Microsoft Excel.

As each of the modules is calculating, a status bar will display the progress of the calculations. As each module completes, the *Status* indicator will change from *Pending* to *Complete* to indicate that it has calculated successfully.

After a particular Company has been run once, subsequent runs will show the module Status as *Complete* for all modules. To re-run the model click the ***Reset*** button next to the module from which you would like to restart the Model. For example, to re-run the Expense Module, click ***Reset*** next to the Expense Module status indicator, and click ***Run***.

Hatfield Model Release 4.0 results can be summarized by *Density Zone*, by *Wire Center*, or by *CBG*. Click on the desired option on the main window before clicking ***Run***. To see all outputs, first run the Model by *Density Zone* and save the results. Next, select either the *Wirecenter* or *CBG*

HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

outputs, click **Reset** next to the Expense module, and then click **Run**. The new output will be displayed.

To run the model with customized user inputs, see Section 5.

The length of computing time required to execute a run of the Hatfield Model depends both on the number of Census Block Groups (CBGs) in the study area being run, and on the speed of the computer. Using 200 MHz Pentium computer with 64 megabytes of RAM and a fast hard drive, the following performance was obtained.

<i>No. of CBGs</i>	<i>Example Study Areas</i>	<i>Processing Time</i>
1000	NYNEX - NH	5 minutes
3000	US WEST - CO	8 minutes
8000	Ameritech - MI	20 minutes
11000	SWB - TX	30 minutes
16000	PacBell - CA	45 minutes

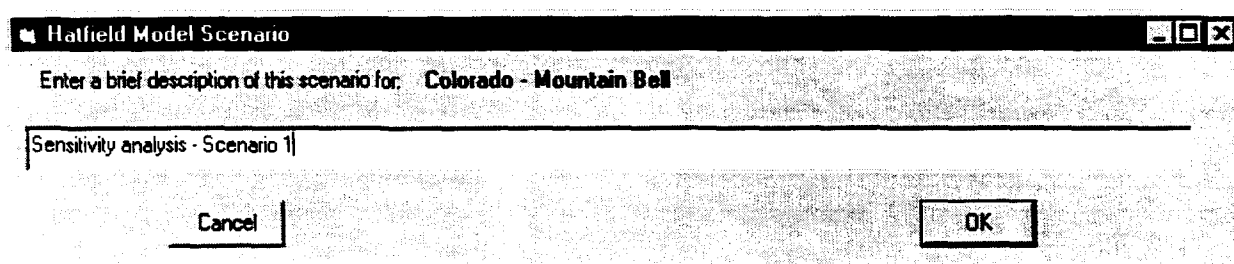
HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

5. Adjusting User Inputs and Managing Scenarios

Hatfield Model Release 4.0 has over 1200 user adjustable inputs. The Model has input boxes which allow these inputs to be changed easily, and provides a scenario manager to allow users to keep track of various sets of input parameters.

The *Default scenario* in Hatfield Model Release 4.0 cannot be changed through the user interface, so a new scenario must be created before input values can be changed.³ To create a new scenario, select **New HM Scenario** from the **HM Tools** menu. The following input box will appear, prompting for a scenario name. The scenario can have any name up to 100 characters long.



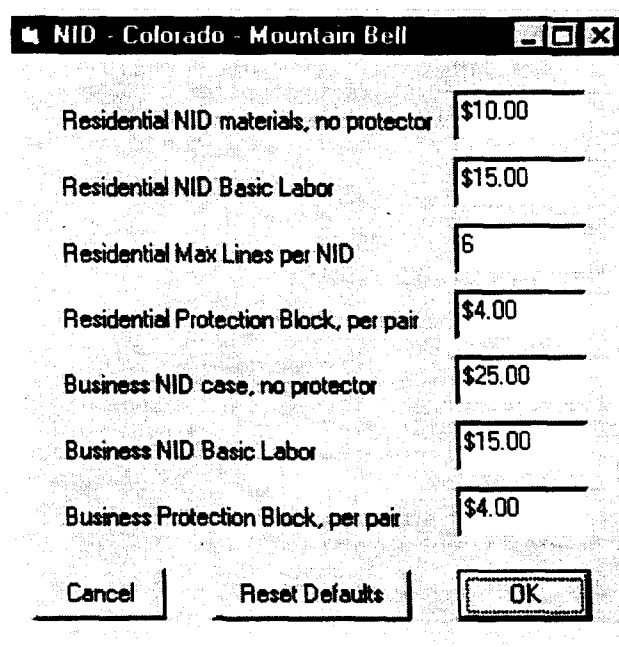
Hatfield Model Scenario

Enter a brief description of this scenario for: Colorado - Mountain Bell

Sensitivity analysis - Scenario 1

Cancel OK

To change a user input, click on **HM Inputs**, then select the appropriate category and sub-category of inputs. An input box will appear:



NID - Colorado - Mountain Bell

Residential NID materials, no protector	\$10.00
Residential NID Basic Labor	\$15.00
Residential Max Lines per NID	6
Residential Protection Block, per pair	\$4.00
Business NID case, no protector	\$25.00
Business NID Basic Labor	\$15.00
Business Protection Block, per pair	\$4.00

Cancel Reset Defaults OK

³ Sophisticated users can alter the specification of the Default Scenario by editing the pertinent input tables in the Microsoft Access database file.

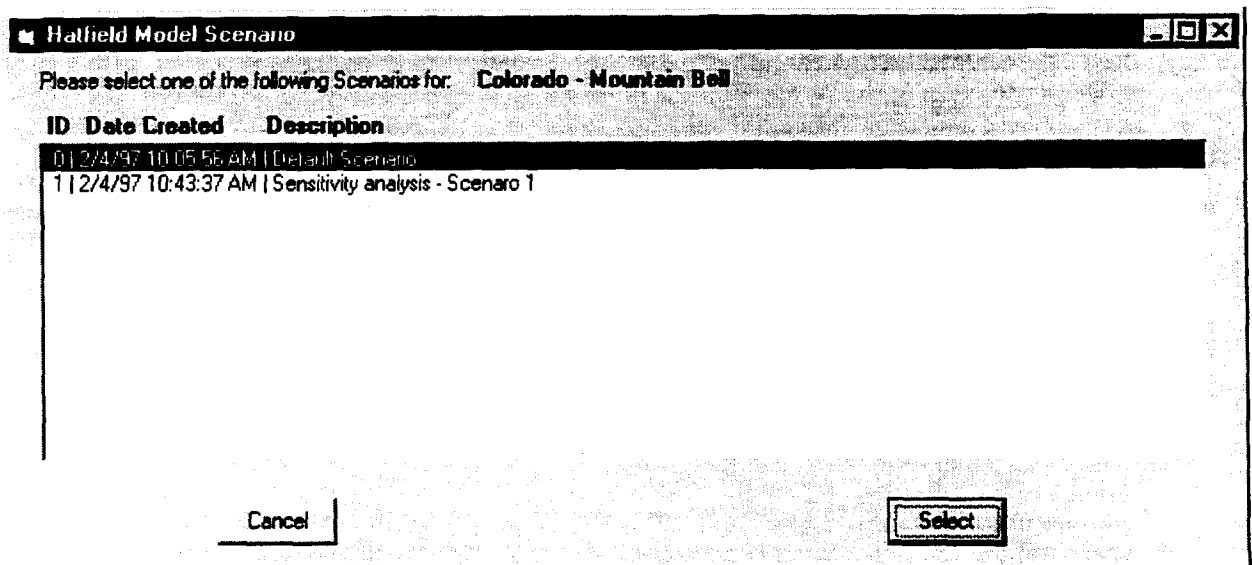
HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

Inputs can be changed by simply typing new values in the spaces provided. Clicking **OK** will register the input change, clicking **Reset Defaults** will return each item to its original value, and clicking **Cancel** will close the input box without registering any changes.

Once a scenario has been created, it can be modified incrementally. After the initial scenario is created, choose **Save HM Scenario As...** from the **HM Tools** menu. An input box will appear, prompting for a new scenario name. Give the scenario a new name. The original scenario will be saved, and further changes can be made to the new scenario under its new name.

To return to a previously created scenario, choose **Open HM Scenario** from the **HM Tools** menu. The following selection box will appear, prompting the user to choose a scenario.



Up to 9,999 different scenarios can be stored in the Model for each company. However, each scenario represents hundreds of input values, so the scenario database could become quite large. Scenarios can be deleted when they are no longer needed by selecting **Delete HM Scenario** from the **HM Tools** menu. A selection box will appear which allows scenarios to be deleted.

HATFIELD MODEL RELEASE 4.0

MODEL INTERFACE AND AUTOMATION DESCRIPTION

6. Additional Features

Changing Modules

Should it ever become necessary to replace or update the modules that comprise Hatfield Model Release 4.0, the Model provides a mechanism to do so.

First, copy the new modules from the updated CD-ROM or diskette into the Hatfield Model Release 4.0 Modules directory. (The default path will be *c:\program files\hm40\modules* under Windows 95 or Windows NT 4.0 and *c:\hm40\modules* under Windows NT 3.51.)

Next, select **Options** from the **HM Tools** menu. A selection box will appear which allows the working modules to be substituted. The right side of the selection box will show all the files that reside in the Modules directory. Select the new module from the list on the right, then click the appropriate button to send the module name to the appropriate box on the left. The module names listed on the left side of the form are the calculating modules used by the Model.

Hatfield Model Options

Distribution Module Name	R40_distribution.xls	<
Feeder Module Name	R40_feeder.xls	<
Switching Module Name	R40_switching_io.xls	<
Expense By Density Zone Module Name	R40_expense_density.xls	<
Expense By Wirecenter Module Name	R40_expense_wirecenter.xls	<
Expense By CBG Module Name	R40_expense_cbg.xls	<

master.xls
R40_distribution.xls
R40_expense_cbg.xls
R40_expense_density.xls
R40_expense_wirecenter.xls
R40_feeder.xls
R40_switching_io.xls

Cancel OK

Deleting Scenario Workfiles

On certain system configurations, Hatfield Model Release 4.0 can run up against the memory limitations of Microsoft Excel 7.0. This generally happens when running very large companies with completed workfiles (i.e., running Pacific Bell subsequent to its initial run). If an *Out of Memory* error occurs when running a large company, click the **Delete Scenario Workfile** option on the **HM Tools** menu. This will delete the previously existing workfile (requiring the run to start from the *Distribution Module*), but should free up the required amount of memory.

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MODEL INTERFACE AND AUTOMATION DESCRIPTION

7. Troubleshooting

Installation Problems

Hatfield Model Release 3 Workstation Prerequisites

The Hatfield Model Release 4.0 is a Visual Basic application designed to run on a Windows 95, Windows NT 3.51, or Windows NT 4.0 workstation and interface with Microsoft Excel Version 7.0. In addition to Excel, the "User Adjustable" inputs and other inputs to the application are maintained in a Microsoft Access 7.0 database that also resides on the workstation. It is not a requirement to have the MS Access software installed on the workstation, however, certain libraries must be in place for Excel to communicate with the Access database that is installed as part of the Hatfield application.

Excel must be set up to work with MS Access.

This is an optional feature that may not have been selected when Excel was installed. If this feature of Excel was not installed, the Hatfield Model application will not function properly. The most common symptom is the Distribution Module will stall and the status message "Copying Scenario Inputs ..." is displayed on the status bar. Another symptom may be a message something like "Runtime Error '424': Object Required" or another message that complains about "VBA Jet".

The most reliable way to verify that this option is installed is to rerun the Excel Setup Program and check the options listed on the Add/Remove Components form.

Another, slightly less reliable, solution is to verify the existence of a library file called "DAO3032.DLL". This solution is less reliable because the Hatfield Installation process places a copy of this file in the appropriate directory for use by the Visual Basic code. Therefore, depending on when you look for this file, (before or after the Hatfield Model Installation routine) it may be in the correct directory but still not "registered" with Excel. This file will most commonly be installed in the following platform specific directories:

Win 95:	C:\Program Files\Common Files\Microsoft Shared\DAO
Win NT3.51:	C:\WINNT35\MSAPPS\DAO
Win NT4.0:	C:\WINNT\MSAPPS\DAO

To properly install and register this feature the Excel Setup Program must be rerun. When you get to the point where you can Add/Remove Components, Click on the Add/Remove Components button. On the next form select the Converter, Filters, Data Access option. On the next form select the Data Access option. Continue from this point by clicking the appropriate "OK", "Continue", or "Next" buttons to install this option. Once the Data Access option has been installed the errors/symptoms listed above should be resolved.